

Chem Advanced Per 6 and 7

Unit One Test

- Total Pts will be 60 pts
- Format: matching; T/F; mult. choice; short answer; fill-ins; essays.
- Allowed: Lab Safety notes (must get checked before using) but NOT equipment list.

Content of Test

- Concepts: Chemistry, matter, energy, substance, mixture, element, compound, heterogeneous, homogeneous, phase(s); solution; solute; solvent; potential energy; kinetic energy
- Five: “Branches of Chemistry”: I, O, B, A, P
- Scientific Method: know steps (flow-chart), essay: use the scientific method to solve a “common, everyday” type problem.
- Physical Properties vs Chemical Properties
- Physical Changes vs Chemical Changes

- States of matter: S, L, G Molecular behavior; shape obtained and volume occupied.
- Mixtures: Heterogeneous vs Homogeneous; Phase(s); Solution = Solute(s) + Solvent
- Separating mixtures: example, distillation.
- Chemical Reactions = Chemical Changes: Reactants yield products (relationship to Law...)
- Energy: Potential vs Kinetic

- Scientific Laws: Law of Conservation of Matter (mass); Law of Conservation of Energy
- Theory of Relativity: $E = mc^2$
- LAB SAFETY and EQUIPMENT: open notes for Lab Safety; Identification key supplied for lab equipment. Also.... Essay: “multi-dimensional lab disaster” scenario. What are you going to do? What order? What equipment?